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Application No. 10/605,547
Amendment dated February 5, 2007
After Final Office Action of December 4, 2006

Docket No.: 014030.0110N/US

REMARKS

Claims 1-82 are pending in the application. Claims 1-82 have been rejected. By this amendment claims 1, 24, 46 and 67 have been amended. No new matter has been added. See, for example, the specification at paragraphs 0018, 0020, 0047-0052 and 0057.

Non-Statutory Obviousness-type Double Patenting

Claims 1-23 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 5,307,263 in view of U.S. Patent No. 4,296,796 (Dunning) and U.S. Patent No. 4,173,971 (Karz).

Claims 24-82 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 5,307,263 in view of U.S. Patent No. 4,296,796 (Dunning) and Fujimoto.

Claims 1-23 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-51 of U.S. Patent No. 5,899,855 in view of Dunning '796 and Karz.

Claims 24-82 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-51 of U.S. Patent No. 5,899,855 in view of Dunning '796 and Fujimoto.

Claims 1-23 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 34-148 of U.S. Application No. 09/237,194 in view of Dunning '796 and Karz. The Examiner notes that this is a provisional obviousness-type double patenting rejection because the conflicting claims have in fact not been patented.

Claims 24-82 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 34-138 of U.S. Application 09/237,194 in view of Dunning '796 and Fujimoto. The Examiner notes that this is a provisional obviousness-type double patenting rejection because the conflicting claims have in fact not been patented.

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Claims 1-82 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-58 of copending Application No. 10/981,872 in view of Dunning et al. The Examiner notes that this is a provisional obviousness-type double patenting rejection because the conflicting claims have in fact not been patented.

Claims 1-23 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-89 of copending Application No. 11/004,135 in view of Dunning et al and Karz. The Examiner notes that this is a provisional obviousness-type double patenting rejection because the conflicting claims have in fact not been patented.

Claims 24-82 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-89 of copending Application No. 11/004,135 in view of Dunning et al and Fujimoto. The Examiner notes that this is a provisional obviousness-type double patenting rejection because the conflicting claims have in fact not been patented.

Claims 1-23 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-64 of copending Application No. 11/004,134 in view of Dunning et al and Karz. The Examiner notes that this is a provisional obviousness-type double patenting rejection because the conflicting claims have in fact not been patented.

Claims 24-82 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6489 [sic] of copending Application No. 11/004,135 in view of Dunning et al and Fujimoto. The Examiner notes that this is a provisional obviousness-type double patenting rejection because the conflicting claims have in fact not been patented. The examiner is requested to clarify the above-referenced claim numbering.

Applicant respectfully requests that the above rejections/provisional rejections are held in abeyance until indication of allowable subject matter.

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35 U.S.C. 103(a)

Claims 1-10 and 13-16, and 19-22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,348,008 (Bornn et al.) in view of Fujimoto 5,339,821 and Karz et al.

The Examiner stated that Bornn et al. shows a system for health monitoring including a central server 4000 in figure 2a, which receives data and communicates data, a microprocessor 1006 based system and memory 1008, which provides a digital signal through a/d converter 1036 which are signals "indicative of air flow;" that the respiration sensors of Bornn are chest expansion transducers 26; that these transducers provide a signal indicative of the expansion of the chest and the signal varies with inspiration and expiration; that, as such, the signal is "representative of air flow;" that the microprocessor-based system also sends data to the central server over link 1002; that, in addition, the central server is in communication with a professional computer at location 5000 which receives patient data (see column 8, line 19) including respiratory data; that, note, the microprocessor based system is a home based unit and has an audio system for indicating information such as alerts to the patient, but does not have a display; that Fujimoto shows a similar system for use by a patient at home while being monitored remotely that includes a display at the patient site to allow the patient to receive instructions on how to use the system, allow communication between the patient and a medical professional, and also to display the data to the patient; that such a system ensures proper use of the device and improves communication between the patient and medical personnel; that, therefore, it would have been obvious to modify Bornn et al to include a display in communication with the microprocessor, to improve the accuracy of the results and simplify a communication; that the "combination does not send messages from the physician computer through the server to the patient" (emphasis added), that, however, Karz shows a system in figure 1 and described in column 5, lines 15-25, where the physician sends messages through the server to the user to make suggestions to improve the patient's health, for example; and that, as such, it would have been obvious to modify the above combination to have the physician communicate through the server to the patient, to increase the quality of the patient's care.

This rejection is respectfully traversed.

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Bornn is directed to a cardiorespiratory alert system and the examiner identified Bornn's base station 4000 as a central server. The base station of Bornn, however, more accurately corresponds to the management unit of the present invention. Bornn discloses two configurations for his alert system. In the hospital configuration, an alert is sent from the patient unit to the base station. The base station forwards the alert to a nurse's station, the nurse's station pages a nurse. If necessary, the nurse's unit opens a voice channel to the patient. In the home configuration, an alert is sent from the patient unit to the base stations. The base station forwards the alert to a dispatcher. The dispatcher can request patient data from the base station or open a voice link to the patient.

Fujimoto discloses a home medical system with a home unit 8 and a host computer 5 on the medical institutional side. Nowhere does Fujimoto disclose or suggest a remote health care professional computer.

Karz discloses a continuous electrocardiogram monitoring method and system for cardiac patients. At the conclusion of a predetermined time period a monitoring station is automatically alerted by telephone and commences receiving the patient's real time ECG signals directly. The recorded ECG signals are then transmitted in a compressed time fashion to the monitoring station simultaneously with the real time ECG signals. The monitoring station receives the compressed time and the real time transmitted signals and following analysis thereof transmits a report of selected portions of the ECG to the physician. Upon instructions from the physician, the monitoring station either returns the recording apparatus to its normal operational status for a predetermined time period or continues to receive and analyze the real time ECG signal until is sufficiently stable and then returns the recording apparatus to its normal operational status. This process repeats continuously. The physician communicates directly with the monitoring station and with the patient as may be required.

Bornn, Fujimoto and Karz, alone or in combination, all fail to disclose or suggest the unique combination of an airflow monitoring system according to the claimed invention integrating the use of a microprocessor-based system, central server and a professional computer along with communications there between. Bornn is lacking, among other things, a central server of the invention and at best provides a data management unit in communication with a chest strap on a patient and a dispatcher/nurse. Fujimoto is lacking, among other things, a health care professional computer in communication with a central server. Karz is lacking, among other things, a central

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server of the invention and at best discloses a monitoring system with an attending technician who is preferably a highly trained person usually a coronary nurse ('971 at col. 14, lines 6-8) and the technician sends reports to the physician or if the physician is present at the same site as the monitoring station, e.g., the coronary care unit then the physician would directly receive the information ('971 col. 14, lines 31-36.) None of the prior art contemplates the unique combination of a micro-processor based subsystem, a central server and a professional computer along with the communication there between as in the claimed inventions; as such resort is made to a combination of these references, however, there is no motivation to combine these three references to meet the limitations of the claims. There is no motivation to combine Bornn and Fujimoto. Bornn is directed to a management system (base station 4000) in communication with a patient where the management system (base station 4000) alerts a nurse to be paged or a dispatcher (dispatcher station 5000), which applicant notes is not a professional computer as claimed. The communication back to the patient is through voice link not through the base station 4000. Fujimoto as well only discloses a home unit and a medical side host computer, but the examiner relies on Fujimoto for its display "to allow the patient to receive instructions on how to use the system, allow communication between the patients and medical profession, and also to display data to the patient." (Office Action at p. 10.) But, Bornn being merely a cardiorespiratory alert system discloses one-way monitoring of the patient and does not disclose or suggest the display of information including information from the professional through a central server as claimed. Other than to meet the claim features, there is no motivation to combine Bornn and Fujimoto. Furthermore, there is no motivation to combine Karz with Bornn and Fujimoto other than to meet the features of the claimed invention. The examiner recognizes that Bornn and Fujimoto, even if combined, the "combination does not send messages from the physician computer through the server to the patient." (emphasis added) and therefore relies on a third reference, Karz. There is no motivation to further combine the improper Bornn/Fujimoto combination with Karz because Bornn/Fujimoto teaches away from sending messages through a central server as specified by applicant's invention because Bornn/Fujimoto rely on medical base stations on the medical institution side along with nurses/dispatchers. To the extent Karz meets this claim limitation there is no motivation to combine it with Bornn/Fujimoto. Moreover, it appears Karz discloses a monitoring station rather than a central server of the invention, as discussed above, where the monitoring station has an attending technician who is preferably a highly trained person usually a coronary nurse ('971 at col. 14, lines 6-8) and the technician sends reports to the physician or if the physician is present at the

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same site as the monitoring station, e.g., the coronary care unit then the physician would directly receive the information ('971 col. 14, lines 31-36.) As such, Karz also does not appear to send messages from the physician through a "central server" to the patient. Therefore, the combination of Bornn, Fujimoto and/or Karz fail to send messages from a health care professional computer through the central server. The unique and non-obvious combination of the microprocessor-based subsystem, central server and health care professional computer as specified in the claims and communications there between would not have been obvious to one skilled in the art at the time of the invention based upon this prior art. Withdrawal of the rejection is respectfully requested.

Moreover, even if Bornn, Fujimoto and Karz are improperly combined, the combination fails to disclose or suggest the particulars of the communication link as required by claim 1. Karz by contrast is directed to continuous monitoring having a timed communication link and does not disclose establishing and terminating the communication link after the airflow-related data has finished and such that the central server stores the message at least until after a communication link has been established by the microprocessor-based subsystem and sends the message to the at least one microprocessor-based subsystem. For this additional reason, the rejection should be withdrawn.

Accordingly, claim 1 defines patentable subject matter. At least for the reasons discussed above with respect to claim 1, its dependent claims 2-10, 13-16, and 19-22 also define patentable subject matter. Prompt allowance is respectfully requested.

Claims 1-10, 13-16 and 19-22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bornn et al 5,348,008 in view of U.S. Patent No. 49601187 [sic] and Fujimoto '821 and Karz.

This rejection is respectfully traversed at least for the reasons discussed above. Withdrawal of this rejection is requested.

Claims 11, 12, 17, 18 and 23 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bornn et al in view of Fujimoto and Karz, as applied to claims 1-10, 14-16 and 19-22 above, and further in view of U.S. Patent No. 5,077,476 (Rosenthal).

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This rejection is respectfully traversed at least for the reasons discussed above. Withdrawal of this rejection is requested.

Claims 11, 12, 17, 18 and 23 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bornn et al in view of Pennock, Fujimoto and Karz as applied to claims 1-10, 14-16 and 19-22 above, and further in view of Rosenthal et al.

This rejection is respectfully traversed at least for the reasons discussed above. Withdrawal of this rejection is requested.

Claims 24-33 and 35-44 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto in view of Dunning et al '796.

This rejection is respectfully traversed. Fujimoto discloses a home medical system with a home unit 8 and a host computer 5 on the medical institutional side. Nowhere does Fujimoto disclose or suggest a remote professional computer. Dunning discloses a pulmonary function tester in which data from a device is sent to a remote computer. Fujimoto and Dunning alone or in combination fail to disclose or suggest receiving instructions "from at least one professional from the central server" as called for in claim 24. Moreover, claim 24 has been amended to call for the particulars of a communication link. For this additional reason, the rejection should be withdrawn. Claims 25-33 and 35-44 depend from claim 24 and further define patentable subject matter at least for the reasons discussed above with respect to claim 24 and further for the additional features recited therein. Withdrawal of the rejection of these dependent claims is also requested.

Claims 34 and 45 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto in view of Dunning et al, as applied to claims 25-33 and 35-43 above, and further in view of Rosenthal et al '476.

Claims 34 and 45 depend from claim 24 and further define patentable subject matter at least for the reasons discussed above with respect to claim 24 and further for the additional features recited therein. Withdrawal of the rejection of these dependent claims is also requested.

Claims 46-55 and 58-65 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Dunning et al in view of Fujimoto.

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This rejection is respectfully traversed. Fujimoto discloses a home medical system with a home unit 8 and a host computer 5 on the medical institutional side. Nowhere does Fujimoto disclose or suggest a remote professional computer. Dunning discloses a pulmonary function tester in which data from a device is sent to a remote computer. Fujimoto and Dunning alone or in combination fail to disclose or suggest "at least one health care professional computer in signal communication with the central server to receive health-related information and to send at least one message from the health care professional computer through the central server to the microprocessor-based subsystem" as called for in claim 46. Withdrawal of the rejection of claim 46 and its dependent claims 47-55 and 58-65 is requested.

Claims 56, 57, and 66-82 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Dunning et al in view of Fujimoto and Rosenthal et al '476.

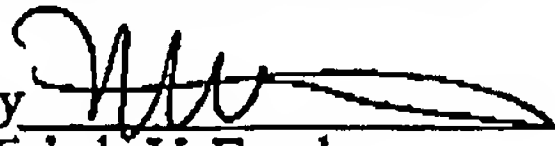
This rejection is respectfully traversed. For the reasons discussed above with respect to claim 46 and for the similar reasons with respect to independent claim 67, and the for the additional features recited in their respective dependent claims 56, 56, 66 and 68-82, withdrawal of the rejection is requested.

In view of the above amendments, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-2228, under Order No. 014030.0110N/US from which the undersigned is authorized to draw.

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Respectfully submitted,

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